

Remarks

Further and favorable reconsideration is respectfully requested in view of the foregoing amendments and following remarks.

Thus, all of the claims have been cancelled, except claim 38, which has been amended to incorporate features from claims 25, 28, 29 and 30. Furthermore, the insoluble alkaline earth metal salt in amended claim 38 is supported by page 9, lines 8-11 of the specification; the pH of the preparation is supported by page 20, lines 7-11; and the water-soluble polymers are supported by the paragraph bridging pages 13-14.

New claims 49-53 have been added to the application.

Claim 49 is supported by page 18, line 12 and the working examples.

Claims 50-51 are supported by page 19, lines 2-5 and 12-15.

Claim 52 combines amended claim 38 and new claim 51, but recites sodium alginate as the water-soluble polymer, which is recited in the working examples.

Claim 53 is the same as claim 49 except for its dependency.

The patentability of the presently claimed invention after entry of the foregoing amendments, over the disclosure of the reference relied upon by the Examiner in rejecting the claims, will be apparent upon consideration of the following remarks.

Thus, the rejection of claims 25-48 under 35 U.S.C. §102(e) as being anticipated by Bandyopadhyay et al. (US '267) is respectfully traversed.

This reference relates to a preparation for treatment of ophthalmopathy ([0002]). The water-soluble preparation disclosed in the reference is for a topical ophthalmic administration of drugs ([0435]-[0436]). Therefore, this reference composition is directly administered to eyes, and Bandyopadhyay et al. do not describe an "oral liquid preparation" as claimed in the present application.

For example, the four compositions described in [0481], [0484], [0485] and [0486] are *in situ* gellable aqueous solutions. These are obviously administered to the eye and turn into a gel in the eye *in situ*. If the *in situ* gellable aqueous solution is orally administered, it is impossible that the orally administered composition reaches the eye and turns into a gel in the eye.

Thus, Bandyopadhyay et al. do not describe an oral preparation.

On the other hand, the preparation of the present invention is orally administered, turns into a gel in the stomach and has a property for sustained-release of medicines.

Further, the preparation of the present invention indispensably contains an insoluble alkaline earth metal salt.

On the other hand, Bandyopadhyay et al. do not describe adding an insoluble alkaline earth metal salt in the composition.

Bandyopadhyay et al. describe “The composition can optionally contain a gel-promoting counterion such as calcium in latent form, for example encapsulated in gelatin” in [0485]. However, the calcium is a counterion, and not a component of the insoluble alkaline earth metal salt.

Even if such an insoluble alkaline earth metal salt is added in the composition by Bandyopadhyay et al., the insoluble alkaline earth metal salt cannot dissolve in the body fluid in the eye, such as tear fluid, and cannot release the counterion to cross-link the water-soluble polymer.

As the Examiner mentioned, “calcium phosphate” is described in [0533] by Bandyopadhyay et al. However, it is clear that the “calcium phosphate” is a method to integrate a vector, and is not a component to add to the composition.

Bandyopadhyay et al. do not describe that the water-soluble polymer in the composition turns into a gel in the stomach by the strong acidity of stomach acid.

To summarize thus far, the preparation of the cited reference is a water-soluble preparation as a topical ophthalmic administration of drugs, which gels at around the pH value of 7.4. On the other hand, the present invention is an oral liquid preparation and does not gel at the pH value of 7.4, but turns into a gel in contact with the stomach acid, of which the pH value is around 1. One of the important differences between the cited reference and the present invention is the use of the alkaline earth metal salt, which is insoluble under the condition that pH is neutral or weakly basic. Further, the water-soluble polymers which can be cross-linked are limited to alginic acid or salt thereof, pectin, and guar gum in the present invention.

For these reasons, Applicants take the position that the presently claimed invention is clearly not anticipated by the Bandyopadhyay et al. reference.

Applicants also take the position that the presently claimed invention is not suggested by the reference. As mentioned above, the preparation of the present invention contains an

insoluble alkaline earth metal salt, and the pH of the preparation is neutral or basic; therefore, the insoluble alkaline earth metal salt does not dissolve in the preparation. However, the insoluble alkaline earth metal salt dissolves in the stomach by the strong acidity of stomach acid, and the released alkaline earth metal ion cross-links the specific water-soluble polymer to be gelled. Such a feature is not described or suggested by Bandyopadhyay et al.

Actually, Bandyopadhyay et al. describe that the liquid composition can be gelled in some cases. However, the gelation occurs in the eye and the pH of the eye is neutral. In other words, Bandyopadhyay et al. do not describe or suggest that the neutral composition turns into a gel under an acidic condition.

Further, the preparation of the present invention can have a masking effect of the bitter taste of the medicine, as shown in Example 8 of the present application.

As mentioned above, the oral preparation of the present invention can show excellent sustained release of the medicine when turned into a gel in the stomach, as shown in Example 9.

Such effects are not considered by Bandyopadhyay et al.

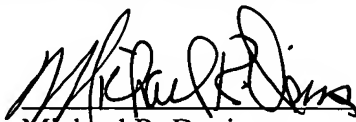
The above superior effects are also demonstrated in the experiments *in vivo* as shown in Examples 10-15 in the present application.

For these reasons, Applicants take the position that the presently claimed invention is clearly patentable over the applied reference.

Therefore, in view of the foregoing amendments and remarks, it is submitted that the ground of rejection set forth by the Examiner has been overcome, and that the application is in condition for allowance. Such allowance is solicited.

Respectfully submitted,

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